AF/3636

PATENT

Case Docket No. SPECBIC.017C3
Date: February 4, 2003
Page-1

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In re application of	:	Minkow, et al.
Appl. No.	:	09/878,719
Filed	:	June 11, 2001
For	:	BICYCLE SADDLE WITH CUTOUT
Examiner	:	Barfield, A.
Art Unit	:	3636

I hereby certify that this correspondence and all marked attachments are being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Board of Patent Appeals and Interferences, United States Patent and Trademark Office, P.O. Box 2327 Washington, D.C. 20231, on

February 4, 2003
(Date)

Edward A. Schlatter, Reg. No. 32,297

BOARD OF PATENT APPEALS AND INTERFERENCES
UNITED STATES PATENT AND TRADEMARK OFFICE
P.O. Box 2327
WASHINGTON, D.C. 20231
Sir:

Transmitted herewith in triplicate is an Appellants' Brief to the Board of Patent Appeals.

(X) Fee for filing brief in the amount of $160 is enclosed.

(X) A check in the amount of $160 to cover the foregoing fees is enclosed.

(X) If applicant has not requested a sufficient extension of time and/or has not paid any other fee in a sufficient amount to prevent the abandonment of this application, please consider this as a Request for an Extension for the required time period and/or authorization to charge our Deposit Account No. 11-1410 for any fee which may be due. Please credit any overpayment to Deposit Account No. 11-1410.

(X) Return prepaid postcard.

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SPECBIC.017C3 PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	:	Minkow, et al.	Group Art Unit 3636
Appl. No.	:	09/878,719	
Filed	:	June 11, 2001	
For	:	BICYCLE SADDLE WITH CUTOUT	
Examiner	:	Barfield, A.	

ON APPEAL TO THE BOARD OF PATENT APPEALS AND INTERFERENCES

APPLICANT'S BRIEF

Assistant Commissioner for Patents
P.O. Box 2327
Arlington, VA 22202

Dear Sir:

Applicant, in the above-captioned patent application, appeals the final rejection of Claims 25 and 26. This appeal is proper under 35 U.S.C. §134 and 37 C.F.R. § 191(a).

This appeal brief is filed in triplicate. A check in the amount of $160 is included to cover the fee for filing the appeal brief pursuant to 37 C.F.R. § 1.17(c). Please charge any additional fees which may be required to Deposit Account No. 11-1410.

I. STATEMENT OF INTEREST

Pursuant to 37 C.F.R. § 1.192(c)(1), Applicant hereby notifies the Board of Patent Appeals and Interferences that Specialized Bicycle Components, Inc., a California corporation, with its principle place of business at 15130 Concord Circle, Morgan Hill, California 95037, has acquired

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the entire right, title and interest to the above-captioned patent application by virtue of an assignment from the inventor filed in parent application having Serial Number 09/172738 and recorded on October 14, 1998 at Reel 9527, Frame 0515 in the U.S. Patent and Trademark Office.

II. RELATED APPEALS AND INTERFERENCES

Pursuant to 37 C.F.R. § 1.192(c)(2), Applicant hereby notifies the Board of Patent Appeals and Interferences that Applicant, Applicant's legal representative, and Specialized Bicycle Components, Inc., are unaware of any appeals or interferences that will directly affect, or will be directly affected by, or have any bearing on the Board's decision in the pending appeal.

III. STATUS OF THE CLAIMS AND AMENDMENTS

Claims 25 and 26 are pending. Claim 25 stands rejected under 35 U.S.C. § 102(b) upon the grounds set forth in the Final Office Action. Claim 26 stands rejected under 35 U.S.C. § 103 upon the grounds set forth in the Final Office Action.

In accordance with 37 C.F.R. § 1.192(c)(9), a copy of the claims involved in the appeal are contained in the Appendix attached hereto.

IV. SUMMARY OF THE INVENTION

An aspect of the invention relates to a bicycle saddle that comprises a rigid frame defining a front end, a back, end a front half, a back half, a first outer side and a second outer side. The frame defines a first support surface at the front end of the saddle which extends from the first outer side to the second outer side and generally widens from front to back. A resilient padding layer is disposed on top of the frame and has a front end, a back end, a front half, a back half, a first outer side and a second outer side. The padding layer is continuous from the first outer side to the second outer side at the front end of the padding layer and defines an upper surface. A central groove is at least partially defined by inwardly facing sides of the resilient material which are beveled outward toward the upper surface. The groove extends to form a scrotum channel

positioned roughly in the longitudinal center of the saddle. The groove has a leading edge defined by the resilient material and it narrows as it extends toward the scrotum channel along a longitudinal axis from approximately the back end of the frame. The leading edge of the groove extends forward to about midway through the front half the padding layer and provides an open space for relieving pressure on the pudendal arteries.

This structure provides a novel bicycle saddle in which a bicycle rider positioned upon the saddle is supported by the rider's ischial tuberosities, and inhibits pressure applied to the sensitive tissues surrounding the pudendal arteries that feed blood to a rider's genitalia. A central groove is formed in the saddle that begins at roughly the back end of the saddle and extends forward to about midway through the front half of the padding. The groove is specifically configured to relieve pressure from a rider's pudendal arteries and shift the support of the rider's weight to the ischial tuberosities.

With reference to a specific embodiment of the invention illustrated in Figures 1, 2, and 4-6, the bicycle saddle generally comprises a resilient material layer 30 on top of a frame 20. Page 4, lines 8-12. A groove 15 is formed through the resilient material layer 30 and is designed to match the anatomy of the ischial tuberosities of the pelvis in an anatomically correct way to relive pressure on the pudendal arteries. *Id.*. Typically, the distance between the ischial tuberosities of an adult varies between approximately 2" to about 4 ½". Page 6, lines 6-9. Accordingly, the groove is formed to support the ischial tuberosities, yet provide space underneath the pelvis along the length of the pudendal arteries. *Id.* Additionally, in some embodiments, the groove 15 is configured to allow space for the scrotum while providing support for the user. *Id.*

V. ISSUES PRESENTED ON APPEAL

The following issues are presented:

A. Whether Claim 25 is properly rejected under 35 U.S.C. § 102(b), as being anticipated by U.S. Pat. No 576,310 to Henderson.

B. Whether Claim 25 is properly rejected under 35 U.S.C. § 102(b), as being anticipated by Plus (bicycle seat advertisement).

C. Whether Claim 26 is properly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 594,451 to Wheeler in view of U.S. Pat. No. 576,310 to Henderson.

D. Whether Claim 26 is properly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 594,451 to Wheeler in view of Plus (bicycle seat advertisement).

VI. DISCUSSION OF THE REFERENCES RELIED UPON BY THE EXAMINER

In rejecting the claims, the Examiner relied upon the following references:

Henderson (U.S. Patent No. 576,310)

Henderson (U.S. Patent No. 576,310) discloses a bicycle saddle having a wire frame bent to define the outer perimeter of a saddle and carries a supporting a planar seat made of perforated wood, cane, or other material which will give stability to the cushion-cover. Page 1 lines 30-47. A saddle cushion has an edge B', C', made of cloth or other material and stuffed with any suitable substance. Page 1 lines 56-59. The saddle cushion has a longitudinal depression through the center of the cushion surrounded by a soft cushion. Page 1 lines 67-72.

Plus Advertisement

The Plus Advertisement apparently discloses a bicycle saddle having a central groove extending from the rear of the frame to just beyond the midpoint of the saddle as it narrows from back to front.

Wheeler (U.S. Patent No. 594,451)

Wheeler (U.S. Patent No. 594,451) discloses a bicycle saddle having a saddletree formed of a number of thin layers of wood. Page 1, lines 43-45. A quantity of padding is disposed directly upon the upper face of the saddletree. Page 1, lines 75-79. The saddletree and padding are embraced by upper and lower leathers. Page 1, lines 83-85. Finally, a central depression is provided to obviate any pressure on the perineum and preventing any bearing at the lower end of the spine. Page 1 lines 22-29.

VII. ARGUMENT

A. Claim 25 is not anticipated by Henderson because (1) Henderson does not teach the claimed frame, and (2) it does not teach a groove defining scrotum channel and configured to relieve pressure on the pudendal arteries.

Claim 25 was rejected under 35 U.S.C. §102(b) as being anticipated by Henderson. Claim 25 contains several limitations not met by Henderson. For example, Claim 25 recites, *inter alia*, a "frame defining a first support surface at said front end of said saddle extending from said first outer side to said second outer side and generally widening from front to back." In contrast, Henderson teaches an open frame formed from a bent wire shaped to describe the margin of the saddle. Additionally, the Henderson frame narrows from front to back before it widens. Therefore, at least these limitations are not met by Henderson.

Moreover, independent Claim 25 recites additional limitations that are not met by Henderson. For instance, Claim 25 recites, *inter alia*, a groove that "provides an open space for relieving pressure on the pudendal arteries." As noted in the accompanying declaration, attached hereto as Exhibit A at page 3, paragraph 6, the Henderson groove is too narrow and is thus inadequate to meet at least this limitation of Claim 25, and therefore, cannot anticipate Claim 25.

In light of the above discussion, the rejection should be withdrawn as Henderson clearly does not anticipate Claim 25.

B. Claim 25 is not anticipated by Plus because Plus does not teach a groove forming a scrotum channel and configured to relieve pressure on the pudendal arteries

Claim 25 is additionally rejected under 35 U.S.C. as being clearly anticipated by Plus (bicycle seat advertisement). The Examiner states that the Plus saddle has a groove that "extends to inherently form a scrotum channel as it narrows from a back of the frame to a front end of the frame."

To the contrary, as stated in the accompanying declaration, Exhibit A, at page 3, paragraph 6, the groove of the Plus saddle is not configured to provide the advantages of the claimed invention. Specifically, the groove of the Plus saddle is too narrow and shallow to provide the benefits of the present saddle, including a groove extending to form a scrotum channel and providing sufficient open space to relieve pressure on the pudendal arteries.

Accordingly, Plus cannot anticipate Claim 25.

C. Claim 26 is not obvious in light of Wheeler in view of Henderson because (1) the examiner's rejection is improper, (2) there is no motivation to combine the references, (3) even if the references are combined, they do not result in the claimed invention, and (4) the claimed saddle groove is not an obvious change in size.

The Examiner rejected Claim 26 under 35 US.C. 103(a) as being unpatentable over Wheeler in view of Henderson and then applied features of Wheeler to the saddle of Henderson. By applying Wheeler to Henderson, we presume the Examiner meant to reject Claim 26 over Henderson in view of Wheeler. In either case, the Examiner states "Henderson shows all of the teachings of the claimed invention except the use of a groove having an [sic] one inch width at a location midway between the front end and back end of the frame." Such is not the case. This

rejection is therefore improper because Henderson does not show all of the teachings of the claimed invention except the use of a groove having a one inch width at a location midway between the front end and back end of the frame. For example, Claim 26 recites, *inter alia*, (1) a "frame defining a first support surface at said front end of said seat," (2) the first support surface "extending from said first outer side to said second outer side," and (3) the frame is "generally widening from front to back." In contrast, Henderson teaches a wire frame that is bent to define an open structure corresponding with the margin of a saddle. Moreover, the wire frame of Henderson defines a saddle that begins at a front end of the saddle, and then narrows before widening toward the back.

Therefore, Henderson does not show "all of the teachings of the claimed invention except the use of a groove having an one inch width at a location midway between the front end and back end of the frame" as the Examiner contends, and the rejection is improper.

Furthermore, even if Henderson taught all of the recited limitations except the use of a groove having a one inch width at a location midway between the front end and back end of the frame, there is no motivation to combine this reference with Wheeler, and even if they were combined, it would not result in the claimed invention.

The addition of the Wheeler groove to the Henderson saddle would result in, at best, a wire frame saddle having a groove that is narrow at the rear, and then widens as it extends from the rear of the frame before it terminates. In addition to the frame limitations not met by this combination, Claim 26 additionally recites, *inter alia*, a groove "narrowing as said groove extends toward said scrotum channel along a longitudinal axis from approximately said back end of said frame." This groove is not taught or suggested by the cited references, either alone or in combination, and therefore, Claim 26 is not made obvious by this combination of references.

Additionally, the claimed saddle forms a groove approximately one inch wide at a location midway between the front and back end of the frame. The Examiner discounts this limitation, stating that "[a] change in size is generally recognized as being within the level of ordinary skill in the art." However, the claimed saddle groove is not merely an obvious change in size; but rather, as supported by medical studies, alleviates the causes of male infertility problems caused by conventional bicycle saddles, Exhibit A, page 1, paragraph 3 and 4. Moreover, the design and production of bicycle saddles has spanned three centuries, yet not a single saddle has been produced having the configuration, features or advantages of the claimed saddle. The claimed features, particularly the configuration of the central groove, is critical to practice the claimed invention, and neither Henderson or Wheeler, either alone or in combination, teach a saddle having the characteristics and advantages of the claimed saddle.

D. Claim 26 is not obvious over Wheeler in view of Plus because (1) the examiner's rejection is improper, (2) there is no motivation to combine the references, (3) even if the references are combined, they do not result in the claimed invention, and (4) the claimed saddle groove is not an obvious change in size.

The Examiner finally rejected Claim 26 under 35 U.S.C. 103(a) as being unpatentable over Wheeler in view of Plus and then applies features of Wheeler to the saddle of Plus. By applying Wheeler to Plus, we presume the Examiner meant to reject Claim 26 over Plus in view of Wheeler. In either case, the Examiner states "Plus shows all of the teachings of the claimed invention except the use of a groove having an one inch width at a location midway between the front end and back end of the frame." Such a statement is not correct.

As stated in the accompanying declaration by Dr. Minkow, "the ISCA Plus advertisement has a cutout/grove that is far too narrow and too shallow to provide the benefits" of the claimed saddle, Exhibit A, page 3 paragraph 6. As discussed above, Plus does not teach at least a groove

extending to form a scrotum channel configured to relieve pressure on the pudendal arteries. Moreover, it is impossible to ascertain whether the saddle shown in the Plus advertisement teaches the additional limitations contained in Claim 26. Accordingly, the Plus advertisement does not teach all the limitations of the claimed invention except the use of a groove having a one inch width at a location midway between the front end and back end of the frame and the rejection is therefore improper.

Furthermore, even if Plus taught all of the recited limitations except the use of a groove having a one inch width at a location midway between the front end and back end of the frame, there is no motivation to combine this reference with Wheeler, and even if they were combined, it would not result in the claimed invention.

The addition of the Wheeler groove to the Plus saddle would result in, at best, a saddle having a groove that is about .75" to 1" at the rear, and then widens as it extends from the rear of the frame before it terminates. In contrast, Claim 26 recites, *inter alia*, a groove "narrowing as said groove extends toward said scrotum channel along a longitudinal axis from approximately said back end of said frame" in addition to the groove being "approximately one inch wide at a location midway between said front end and said back end of said frame." This groove is not taught or suggested by the cited references, either alone or in combination, and therefore, Claim 26 is not made obvious by this combination of references.

The Examiner further states that "[a] change in size is generally recognized as being within the level of ordinary skill in the art." However, as discussed above, the claimed saddle groove is not merely an obvious change in size; but rather, as supported by medical studies, alleviates the causes of male infertility problems caused by conventional bicycle saddles, Exhibit A, page 1, paragraph 3 and 4. Moreover, the design and production of bicycle saddles has spanned three centuries, yet not a single saddle has been produced having the configuration,

features or advantages of the claimed saddle. The claimed features, particularly the configuration of the central groove, is critical to practice the claimed invention, and none of the cited references, either alone or in combination, teach a saddle having the characteristics and advantages of the claimed saddle.

VIII. CONCLUSION

Nothing in the prior art discloses, teaches or suggests the invention recited by the claims discussed above. The final rejection of Claims 25 and 26 should therefore be reversed. Favorable action to this end therefore is most respectfully solicited.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR

Dated: February 4, 2003

By: _____

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Appendix

25. An ergonomic bicycle saddle, comprising:

a rigid frame defining a front end, a back end, a front half, a back half, a first outer side and a second outer side, said frame defining a first support surface at said front end of said saddle extending from said first outer side to said second outer side and generally widening from front to back;

a resilient padding layer disposed on top of said frame and having a front end, a back end, a front half, a back half, a first outer side and a second outer side, said padding layer being continuous from said first outer side to said second outer side at said front end of said padding layer, and defining an upper surface;

a central groove at least partially defined by inwardly facing sides of said resilient material which are beveled outward toward said upper surface, said groove extending to form a scrotum channel positioned roughly in the longitudinal center of said saddle, said groove having a leading edge defined by said resilient material, said groove narrowing as said groove extends toward said scrotum channel along a longitudinal axis from approximately said back end of said frame; and

said leading edge of said groove extending forward to about midway through said front half of said padding layer; and

wherein said groove provides an open space for relieving pressure on the pudendal arteries.

26. An ergonomic bicycle seat, comprising:

a rigid frame defining a front end, a back end, a front half, a back half, a first outer side and a second outer side, said frame defining a first support surface at said front end of said seat extending from said first outer side to said second outer side and generally widening from front to back;

a resilient padding layer disposed on top of said frame and having a front end, a back end, a front half, a back half, a first outer side and a second outer side, said padding layer being continuous from said first outer side to said second outer side at said front end of said padding layer, and defining an upper surface;

a central groove at least partially defined by inwardly facing sides of said resilient material which are beveled outward toward said upper surface, said groove extending to form a scrotum channel positioned roughly in the longitudinal center of said seat, said groove having a leading edge defined by said resilient material, said groove narrowing as said groove extends toward said scrotum channel along a longitudinal axis from approximately said back end of said frame; and

wherein said groove is approximately one inch wide at a location midway between said front end and said back end of said frame.

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